

## REMARKS

Claims 1-14 and 29-41, as amended, and new claims 42-44 are pending for the Examiner's review and consideration. Claim 1 has been amended to recite a preferred ratio of vegetable solids to fat, and accordingly, claim 8 has been canceled without prejudice. Claim 6 has been amended to cancel the term "rutabaga." Claim 7 has been rewritten in independent form, and Applicants appreciate the Examiner's recognition of the patentability thereof. New claims 42-43 recite this feature of claim 7, but depend from claims 39 and 41, respectively. New claim 44 recites that the product further includes a flavoring material sufficient to mask the vegetable flavor in the product (*See, e.g.*, Specification at page 9, lines 6-10). Accordingly, as no new matter has been added, entry of the claims and the amendment as a whole is warranted at this time.

Applicants would again like to set forth a brief summary to highlight the surprising and unexpected features of the present invention to the Patent Office. The present invention is directed to a nutritious confectionery product that has a refined mixture of vegetable solid content to provide nutritional content and includes fats including cocoa butter or derivatives thereof, vegetable fat, or a combination thereof, in amounts of at least 25 percent by weight to provide a confectionery texture. The product further contains sugar in an amount from about 6 to 15 weight percent to control the fat hardness in claims 1, 9, 39, and 41. Each independent claim also recites the features of claim 8, canceled herein, that the ratio of non-cereal vegetable solids to fat is between about 1:2 to about 3:1. The nutritious confectionery of the present invention promotes vegetable consumption, especially for those who do not like the taste of vegetables on their own, while trying avoid including excess sugar that reduces the nutritious aspect of the claimed invention. Thus, the present invention advantageously provides a vehicle for vegetable consumption, while offering a pleasant taste and confectionery texture much like chocolate or other confectionery products. Importantly, the confectionery product sets into a stable shape that has a confectionery texture.

Claim 6 was rejected under 35 U.S.C. § 112, first paragraph, as lacking possession of the invention with respect to the term "rutabaga." Applicants have amended claim 6 to remove this term to expedite the prosecution of this matter. As such, this rejection is believed to be moot and should now be withdrawn.

Claims 1-5, 10-14, and 29-40 were rejected under 35 U.S.C. § 103(a) as being obvious over DE 2746479 to Bayer AG ("Bayer") for the reasons set forth on pages 2-4 of the Office Action. The Office Action maintains that Bayer discloses 5-75% shredded beet, bran, or vegetable fibers, and specifically 15% wheat bran, which is a cereal component. It also alleges that at least 25% by weight solid fat is disclosed because one example contains 21%

cocoa butter and 20% of a different fat--milk butter--that would be obvious to modify. The Office Action also indicates there is no showing of criticality or unexpected result from the types of fats claimed, or that the fat produces a different result than that of Bayer. Also, the Examiner alleges that the different sugar content is simply a matter of taste or sweetness desired. The Office Action also alleges that the size vegetable particle is determined by whether or not the taste is desired, since it would have been obvious to use large particles to have the taste and small particles to avoid it. Again, Bayer provides no motivation to alter the particle size to obtain a confectionery texture, which texture is presently recited.

Initially, claim 8, which recites the ratio of non-cereal solids to vegetable fat was not rejected over Bayer. This feature is now present in claim 1, as well as independent claims 39 and 41. As such, all claims are now patentable over Bayer alone and this rejection should be withdrawn.

Bayer discloses a confectionery with an adulterant consisting of dried beet, bran and Soya flour. Bayer does disclose that 5-70 percent of dried fiber can be used. The following examples are disclosed in the cited reference: Example 1 recites: 13% cocoa, 21% cocoa butter, 2% Soya flour, 20% whole milk powder, 29% sugar and 15% bran; Example 2 recites: 13% cocoa, 21% cocoa butter, 2% Soya flour, 20% whole milk powder, 29% sugar and 15% beet; Example 3 recites: 26% hazelnut, 14% cocoa butter, 33% sugar, 13% whole milk powder, 4% Soya flour, and 10% beet.

The Office Action concedes that Bayer fails to teach the sugar content and water activity, the vegetable solids particle size, at least 25% of the recited types of fat, and various other features in dependent claims. Instead, the Office Action indicates that each of these claimed features is obvious in view of Bayer. While modification of each feature individually may be obvious, no motivation existed for one of ordinary skill in the art to modify all of these claimed differences from Bayer. Indeed, this is even more apparent when considering that Bayer is directed to a completely different type of product--one with fiber content--rather than a nutritious product that contains low amounts of sugar, vegetable solids, particular ratios of those solids to fats to facilitate setting/stability of the product, etc. Of course, Federal Circuit case law requires that a motivation to modify the prior art must be found in the prior art itself rather than in an unsupported determination that the motivation exists. *In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir., 2002) (finding that the Board of Patent Appeals and Interferences improperly relied upon common knowledge and common sense of person of ordinary skill in art to find invention of patent application obvious over combination of two prior art references, since factual question of motivation to

select and combine references could not be resolved on subjective belief and unknown authority).

Bayer does not teach all the components presently claimed and does not contain the motivation to modify its significantly different product to obtain the claimed confectionery products. For example, independent claims 1, 39, and 41, and dependent claim 9, each recites sugar in an amount from about 6 weight percent to 15 weight percent sugar to control hardness of the solid fat. Bayer teaches nothing about the hardness of the solid fat, or that the amount of sugar can help control the hardness to achieve the desired and claimed confectionery texture. This amount of sugar is not simply a matter of desired taste or sweetness. Also, Bayer does not teach a range of sugar content, but simply contains three specific examples containing specifically, 29%, 29%, and 33% sugar. Bayer fails to motivate any deviation from this level of sugar, particularly to the low levels presently recited.

Moreover, the level of sugar presently claimed is **not** simply a matter of desired sweetness, as alleged by the Office Action. Rather, as previously stated, the claimed level of about 6 to 15 weight percent sugar is important to ensuring that the fat content of the present invention is stabilized and sets, *i.e.*, that the sugar is present in this amount to control hardness of the solid fat, as presently recited. The presently recited sugar content provides a surprising and unexpected benefit in the setting and stability of the nutritious products of the present invention. Bayer further has no such teaching or motivation that there are benefits beyond simply altering the level of sweetness. Bayer's sugar contents are too high, resulting in a product that does not have the desired hardness that results from the claimed amount of about 6 to 15 weight percent sugar. Also, Bayer's high sugar contents, which are almost *twice* that of the claimed invention, do not provide a nutritious confectionery product as presently claimed. Bayer's high sugar contents leave less available "space" in the product for the claimed non-cereal vegetable solids. Bayer simply provides increased fiber to help with digestion and decrease appetite, but Bayer does not in any way motivate one of ordinary skill in the art to provide actual nutritional content while minimizing sugar content, like the presently claimed non-cereal vegetable solids.

Several misconceptions in the Office Action require comment. The Office Action noted that Bayer teaches specifically 15% wheat bran, which is a cereal component. This is irrelevant as to most claims, which recite a non-cereal component. It is relevant to dependent claim 11 and to independent claim 39. While it is true the reference teaches wheat bran as a source of the fiber desired by Bayer, Bayer completely fails to disclose or remotely suggest combining fiber sources. Even the three examples of Bayer teach only a single fiber source, *i.e.*, beet cossettes or wheat bran. Claims 39 and 11, however, each recite a

combination of non-cereal vegetable solids (in a particular ratio with the fat) and cereal components. Bayer is simply insufficient in this regard.

The Office Action also indicates there is no showing of criticality or unexpected result from the types of fats claimed, or that the fat produces a different result than that of Bayer. Again, the entire claimed invention uses solid fats in a particular amount, and in a particular ratio with non-cereal vegetable solids, to obtain a superior nutritious confectionery product that sets with a particular hardness of the fat. This is clearly a surprising and unexpected result that is not disclosed or remotely suggested by Bayer. Also, the Office Action alleges that the vegetable particle size is determined by whether or not the vegetable taste is desired. Bayer does not, however, teach a confectionery texture that is facilitated by the proper particle size, as presently recited. Different vegetable particle sizes may affect the taste, but Bayer itself fails to motivate preparation of certain types of vegetable solid particles of a particular size and in a particular ratio with the fat, as presently recited.

The Patent Office previously indicated that Bayer discloses more than the 25% fat recited in the claims by improperly including the 20% "milk butter" with the 21% cocoa butter of Example 2. Now, however, the Patent Office is rejecting the claims for essentially the same reason but couched in different terminology. Specifically, the Office Action alleges that at least 25% by weight solid fat is disclosed because one example contains 21% cocoa butter and 20% of a different fat--milk butter--that would be obvious to modify to obtain the claimed feature. On the contrary, "milk butter" is not cocoa butter or a derivative thereof, vegetable fat, or a combination thereof, as presently recited, and no motivation existed to modify it to the claimed types of fats. Indeed, the claimed types of fats are important, because--in combination with the claimed sugar content--a stable confectionery product can be surprising and unexpected achieved where Bayer failed to do so. Therefore, milk butter is not obvious to modify and cannot be considered as obvious to modify to obtain the claimed fat feature. Moreover, milk butter has the disadvantage of being softer than the claimed fats, and as such, it has a negative effect that precludes attainment of other recited features. Thus, Bayer still fails to teach inclusion of more than 25% of a fat including a cocoa butter or derivative, vegetable fat, or combination thereof, as presently recited.

In particular, milk butter, although it can be included in the product in small amounts as an optional ingredient, cannot be used as a substitute for the basic fat content recited. As noted by Applicants in the previous Amendment, milk butter undesirably alters the transition temperatures at which crystals form in the claimed fat component by slowing down the rate of crystallization and inhibiting or preventing proper fat crystallization. This improper milk butter effect undesirably minimizes or eliminates the gloss, snap, and color

desired in confectionery products, and also creates processing problems such as during molding. The low-melting temperature triglycerides in milk butter relative to cocoa butter and vegetable fats, if substituted for part of the claimed fat content, would effectively dilute the claimed fat content and undesirably soften the chocolate, which for example can cause shipping, storage, and eating problems. Moreover, milk butter substitution would facilitate the undesirable presence of chocolate bloom, which is a confectionery defect that occurs when fat melts and recrystallizes in the wrong form as blobs of fat on the surface of the product. The present invention recites certain fat components that should possess crystallization properties necessary for forming stable, shaped confectionery products (*See* Specification, ¶ 30, lines 6-9 and ¶ 32, lines 3-7), and also recites that the product has snap and gloss. Bayer inherently does not teach products having snap and gloss as presently recited, since Bayer includes a sufficiently large amount of milk butter to preclude this. For these reasons, milk butter would materially and undesirably affect the required properties if used to substitute for any of the required 25% by weight of the claimed fat component. As such, Bayer still fails to teach the at least about 25 weight percent of a fat component that includes cocoa butter or derivatives thereof, vegetable fat, or combinations thereof, as presently recited. Also, the inclusion of milk butter in Bayer's example would provide a product that does not have gloss or snap, and therefore claims 39 and 41 are separately patentable for this reason. It is improper for the Patent Office to maintain that the claimed fats are obvious to modify based on the teachings of Bayer, since the specific materials of Bayer create problems that would preclude success in attaining the claimed invention--even if all the other features missing from Bayer were actually disclosed or suggested therein.

Independent claims 1, 39, and 41, also recite a ratio of non-cereal vegetable solids to fat of about 1:2 to about 3:1. This is important because it provides a compromise between a product that will set properly and have a stable shape, as presently recited, and one that will simply be formed as a shaped bar or mixture like that of Bayer. The recited product sets, while Bayer does not teach a product that does. The ratio of components recited also provides a compromise between having sufficient nutritional value and melt sensation. Applicants have determined that this ratio provides a surprising and unexpected benefit as follows. If too little crystallizable fat is included, the product will not set into a stable shape and a confectionery texture cannot be achieved. On the other hand, if too much fat is included, the nutritional content will be too low and the melt-in-the-mouth sensation recited in these claims will not be properly achieved (*See also* Specification at ¶ 29). Thus, the amount of fat must be controlled to achieve the claimed characteristics, and Bayer fails to teach such a ratio and fails to teach the resultant desired characteristics presently claimed.

*e.g.*, snap, gloss, a formulation that sets, a stable product, and melt-in-the-mouth sensation. At best, it could be inferred that Bayer might teach a stable product. Any teaching to use a fat for cost or flavor is irrelevant to the present claims, which require certain crystallizable fats to provide the claimed characteristics and in certain ratios with the sugar to provide for the stability and other claimed characteristics. Bayer fails to teach the importance of such fat choices and amounts, particularly as compared to the vegetable solids content, as presently recited.

Examining Bayer's teachings more carefully, it becomes clear that Bayer fails to teach a product that is remotely close to that discovered by the inventors and presently claimed. Example 1, of course, does not even disclose or remotely suggest non-cereal vegetable solids, as presently recited. Example 2 of Bayer teaches a higher vegetable solids to fat ratio (roughly 1:3) than the about 1:2 maximum presently recited in independent claims 1, 39, and 41, which means too much fat is taught by Bayer and it cannot possibly provide a nutritious product as presently recited, particularly in view of its high sugar levels. Moreover, the products of Bayer's Example 2 are too waxy and do not have a proper melt-in-the-mouth sensation as presently recited in claims 9, 39, and 41, since this example includes such a large amount of milk butter. As a result, while Bayer's high (29%) sugar content helps harden Bayer's overly soft product due to the fat content, the total fat and sugar is almost 4/5 of the total content leaving an unhealthy product compared to that of the present invention. Example 3 of Bayer is a simple compressed slab, and contains an amount of fat that is lower than the presently claimed amount and insufficient to form a matrix with the vegetable solids, while having a 33 percent sugar content well above what is nutritionally acceptable. These products cannot form properly and in fact must be pressed and extruded, *i.e.*, Bayer's Example 3 does not teach a set, stable product. Bayer's high amount of powdered contents (hazelnuts, sugar, and powdered beet cossettes) in Example 3 also cannot achieve a melt-in-the mouth sensation, as presently claimed. Indeed, Example 3 of Bayer does not refine the mixture and cannot possibly provide a continuous fat phase that serves as a matrix for the vegetable solids, as presently recited in various claims. As a result, Example 3 cannot provide a confectionery texture and cannot provide the snap and gloss presently recited. On the contrary, Example 3 teaches a product that is gritty and has no snap, gloss, or melt-in-the mouth sensation.

Bayer as a whole fails to teach much more than the specific components of its examples. Bayer is directed to a confectionery that includes an adulterant that swells in the intestine to improve digestion and reduce the sensation of hunger, *i.e.*, to *discourage eating*. It does not teach or suggest a nutritious confectionery product that provides a pleasurable,

tasty, vehicle for vegetable consumption, designed especially to encourage children and others who do not like the taste of vegetables to increase their intake of such food (*See, e.g.* Specification at ¶ 8). Bayer teaches a product that is "tastier and more consumer-acceptable" than *tablets or other pressed materials* (Bayer, page 1, ¶ 5). Thus, Bayer is comparing its product to *medicine*-type formulations that are not typically even considered food. Bayer also specifically teaches that the fiber content is designed to swell, increase residence time of its fiber confectionery product, and teaches that "the feeling of hunger is lowered as a result" (Bayer, paragraph bridging pages 1-2). As a whole, Bayer teaches a product that is intended to inhibit eating, while the present invention recites a nutritious confectionery product with nutritional content that is designed to enhance and increase consumption of vegetables without an unduly high sugar content like Bayer. This is the essence of a reference *teaching away* from a claimed invention, and Applicants continue to maintain that nothing on the record has contradicted this point.

In sum, Bayer does not disclose or suggest the sugar content, the ratio of fats to vegetable solids, the amounts of the recited types of fats so as to impart a confectionery texture to the product, or the particle size of vegetable solids, as presently recited. Bayer completely fails to teach the claimed invention. Accordingly, Bayer has significantly different components and amounts, a different form, and simply cannot provide the characteristics recited in the present invention, in addition to teaching away from the recited invention. Moreover, claim 13 recites a combination of vegetables in the solids, which can provide unique mixtures of vegetable material in a desirable, edible form. Bayer fails to teach the features of claim 13, as it discloses beets as a dietary fiber and fails to suggest any other vegetables at all, much less the inclusion of a combination thereof. Claim 13 provides the wonderful and nutritious advantage of providing multiple types of vegetables into the dietary intake of consumers. Also, Bayer fails to teach a flavoring material to mask a vegetable flavor, particularly since it only has one example of a vegetable to begin with. New claim 44 recites such a flavoring material in an amount sufficient to mask the vegetable flavor of the vegetable solids of the present invention. Thus, Applicants respectfully request that the rejection of claims 1-5, 10-14, and 29-41 under 35 U.S.C. § 103(a) be reconsidered and withdrawn, since no *prima facie* case of obviousness has been shown on the record.

Claims 6 and 8-9 were rejected under 35 U.S.C. § 103(a) as being obvious over Bayer in view of an article "Fiber in Vegetable Helps Prevent Colon Cancer" ("Fiber Article") as set forth on pages 4-5 of the Office Action. The Office Action reiterates that Bayer teaches shredded beet, bran, or vegetable fibers, as well as wheat bran, and that the

Fiber Article discloses that certain vegetables including light green and yellow-orange ones are high in fiber content.

Initially, claims 6 and 8-9 are dependent and as such are patentable in view of their dependency from claim 1. Applicants do not dispute that certain vegetables are high in fiber content, and that the Fiber Article discloses certain vegetables having high fiber content. The Office Action, however, illustrates a misunderstanding of the claimed invention by stating that "[I]t would have been obvious to one to add vegetables when the taste for such vegetables is desired. . . ." On the contrary, the present invention is directed to providing vegetable content into a nutritious product that **does not taste like vegetables** so as to encourage consumption of vegetables. The vegetable solids of the claimed invention are thus finely ground. Thus, it is clear that the alleged motivation to combine the Fiber Article and Bayer simply does not exist as alleged in the Office Action, since Bayer is directed to providing increased fiber content in the form of bran, beet cossettes, and ground plant fibers to help with digestion and decrease appetite. There was no motivation in the cited references to use other types of vegetables, since Bayer fails to teach use of anything more than a specific example of a vegetable, *i.e.*, beets, and for a different purpose than the colon cancer fighting properties of certain vegetables suggested by the Fiber Article.

Moreover, claim 8 recites a particular ratio of non-cereal vegetable solids to fat. The Fiber Article is completely silent on this point, and therefore, completely fails to remedy the deficiencies of Bayer in this regard. Claim 9 recites specific sugar levels to control hardness of the fat. Bayer has numerous deficiencies in this regard, as previously discussed, and the Fiber Article also completely fails to provide any teachings to remedy these deficiencies. In fact, the Fiber Article contains a recipe for preparing colon cancer fighting vegetables. This recipe does not contain any sugar and only a low level of fat (*i.e.*, olive oil), such that it teaches one of ordinary skill in the art away from combining healthy vegetables with the sugar laden product of Bayer. Claims 6 and 8-9 are believed to be patentably distinct even over Bayer in combination with the Fiber Article, particularly in view of the lack of motivation to combine these references. The feature of claim 8, of course, is now recited in independent claims 1, 39, and 41, and has therefore been canceled. Furthermore, new claim 44 recites an additional flavoring material to mask the vegetable flavor. Even if a motivation existed to combine the vegetables of the Fiber Article with the beet/bran-based confectionery product of Bayer, the combination still fails to disclose or suggest a flavoring material sufficient to mask the vegetable flavor. Thus, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be reconsidered and withdrawn as to claims 6 and 9.

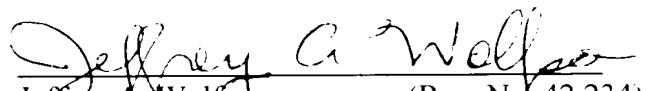


Moreover, in view of the feature of claim 7 being allowable, Applicants have added new claims 42-43, which recite the same feature and depend from claims 39 and 41. As such, these claims should also be allowed if rewritten in independent form or added to their parent independent claims.

Applicants submit that the entire application is now in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

Respectfully submitted,

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